

**Leland Initiative: Africa Global Information
Infrastructure Gateway Project (698-0565)**

Strategic Objective 3: End-User Applications

**Internet for Development Applications and Training:
USAID/Cotonou Trip Report**

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Executive Summary

The Leland Initiative's Strategic Objective 3 (SO3) promotes broad-based utilization of information technologies within USAID's development partner community to promote sustainable development. The Leland Initiative SO3 Internet end-user training is designed to enable USAID missions and USAID development partners to harness the potential of Internet technologies to further their development objectives. This training introduces participants to the information and communication resources available through the Internet. In addition to learning about the mechanics of Internet use, the training guided the participants through a planning process for effectively introducing the Internet into their respective institutional settings.

The Leland training in Cotonou, Benin was held at the computer training center of the Children's Learning and Equity Foundation (CLEF) Project offices from August 17-31, 1998. The goal of the CLEF Project is to enhance the implementation of the Government of Benin's reform of the Beninese Primary Education System. Accordingly, the CLEF uses its computer training center to enhance the technical capabilities of education professionals.

The training introduced 112 participants to the Internet and the research and communication tools it offers. Participants were afforded time during the training for hands-on practice. Each participant of a two-day training session also created an action plan designed to guide the introduction of the Internet into his or her organization. The training sessions included two-day sessions for the USAID/Cotonou development partners working in the missions respective development sector programs, including health, education, and good governance. The training also included a three-day training of trainers session designed to enhance the skills of those who will be training others on the Internet in the future, and a one-day session for teachers participating in the U.S. government-sponsored GLOBE Program (www.globe.gov), in addition to CLEF Project education specialists. Three half-day tailored sessions for executives and trainers were also conducted, catering to the information needs of each audience with regard to their role in using and promoting the Internet.

USAID/Cotonou and the Leland Initiative have thus far played an integral part in developing the Internet industry in Benin. Using the Internet, the Beninese public is now able to access to information previously unavailable, and is more effectively communicating and networking with others throughout the world. With continued assistance from USAID/Cotonou and the Leland Initiative, Benin's development community will expand their effective and innovative use of the Internet and its applications to attain their organizational objectives.

Follow-up activities to this training by USAID/Cotonou and the Leland Initiative will provide important support to Benin's nascent Internet industry and expanding user base. The recommended next steps outlined in this report include:

- Technical training for Internet Service Providers
- Promotion of a Benin Chapter of the Internet Society
- Building internal USAID/Cotonou Internet capacity
- Increasing Internet awareness and support in Benin

- Resolution of outstanding Leland/OPT coordination issues

Background

Leland Initiative and USAID/Cotonou Collaboration

Working in close collaboration with USAID/Cotonou since early 1996, Leland activities in Benin have sought to improve Internet connectivity throughout the country by providing policy and technical assistance to Benin's Internet industry. Leland Internet awareness raising and training activities to date have focused on USAID/Cotonou development partners for the most part. USAID/Cotonou has a diverse development program that addresses a wide range of issues and involves a significant number of Beninese partners. The June 12, 1998, inauguration of the USAID Leland Initiative Internet gateway, and the recent Internet end-user training held for mission development partners, are indicative of the significant steps made since 1996 by the Leland Initiative and USAID/Cotonou to promote the Internet in Benin.

Though the Internet industry in Benin continues to expand, and the Internet user-base grows in-kind, the Leland Initiative and USAID/Cotonou should continue to strategically support key institutions within the ISP sector and provide further training and technical support to select USAID/Cotonou partners interested in harnessing the Internet as a development tool. To build on activities undertaken to date, particularly the recent training, next steps for Leland personnel and USAID/Cotonou are outlined in this report. The successful implementation of these suggested activities is partially contingent on the delegation of specific tasks among the USAID/Cotonou Leland team, including the Leland Country Coordinator.

Internet Industry in Benin

The *Office des Postes et Telecommunications du Benin* (OPT) inaugurated the country's USAID Leland Initiative gateway on June 12, 1998. In conjunction with the inauguration, eight organizations were selected by USAID/Cotonou and OPT as potential Internet Service Providers (ISPs). As a Leland Initiative ISP, a port for a dedicated line on the Leland-donated router would be assigned to each of the eight organizations selected. At present, four of these organizations are operational as ISPs and are accepting subscribers. One organization, TEI, presently operates as a cyber center, yet anticipates providing ISP services once adequate telephone lines are installed in its area. Three of the nominated organizations have yet to purchase the equipment necessary to become an ISP, in addition they are hampered by telephone line saturation in their area. There are also six Internet-connected cyber centers accessible to the public in Cotonou.

Training

The Leland Initiative training in Cotonou was held at the Children's Learning and Equity Foundation (CLEF) Project's computer training center from August 17-31, 1998. The training introduced 112 participants to the Internet and the research and communication tools it offers. The participants were nominated by the respective USAID/Cotonou strategic objective teams to participate in the training. The training was conducted by AED's Zoey Breslar and Brian Bacon, the USAID/Cotonou Leland Initiative Coordinator, Jacqueline Ahouansou, and the Benin's Leland

Country Coordinator, Yaovi Atohoun. The training sessions were conducted in French, with all materials and development resources referenced also in French. Certain teaching aids, such as Beninese World Wide Web (WWW) resources, were used in order to heighten the interest of participants and to demonstrate Benin's presence on the Internet.

Training Environment

The training environment provided by the CLEF Project was ideal. The mission handled all of the preparation and invitations for the training. The training space at the CLEF Project allowed up to 18 participants in each session, two per computer terminal. The capacity of the Internet connection allowed all computers to effectively access WWW resources simultaneously. An LCD projector attached to the trainers' laptop computer allowed for effective classroom demonstrations. A large conference room was made available for the noncomputer sessions. The equipment and applications ran smoothly throughout the training, with CLEF Project technical support on-hand during the entire training.

Training Content

By design, the Leland end-user Internet training targets both USAID staff and their local partner institutions for one or two-day Internet training sessions. The training includes Internet use skill development, as well as a process for examining organizational information uses and needs, and action planning process for the use of the Internet in a participant's organization. This action planning process is often new to the participants and assists them not only to become realistic about the Internet as a potential tool, but also prepares them to become advocates for its use within their organizations. By having USAID staff and partners both undergo this learning process, both learn how to better collaborate and increase information access and information sharing within their organizations and among their outside partners.

The Leland training is tailored to the participants' computer skill level and their knowledge of the Internet. Participants were generally both excited and curious about the Internet. Many, in fact, were already connected and using e-mail, yet still eager to improve their skills. Participants were asked about their expectations for the training during the first half-hour of the training; these expectations were then reviewed at the conclusion of the training. The expectations expressed by the participants for the training included: how to use the Internet, how to get information from the Internet, a desire to assist or train others to use the Internet, an understanding of the tools available from the Internet, how to get connected to the Internet, and how to use the Internet to better share information. The participant evaluations stemming from the training indicated that overall these objectives were achieved to the satisfaction of the participants. Stating these expectations at the outset also provided an opportunity for the trainers to address those expectations which were beyond the scope of this training (i.e., web page development), and, in turn, direct the participants to the local ISPs as providers of further training.

Two-Day Sessions: The two-day training sessions provided participants with background information on the Internet, and hands-on skills for e-mail and WWW use. The sessions also took the participants through the above-mentioned information use analysis and action planning process.

The training modules were arranged so that participants would alternate time spent on the Internet with time spent reflecting on their use of information and the potential use of the Internet. The action planning was particularly valuable in that it allowed participants to leave the training with both the technical skills they had acquired and strategies for integrating Internet use into their institutions. The use of the LCD panel for demonstrations, flip charts listing URL resources, an environment that encouraged questions and interaction, and the use of a separate conference room for noncomputer time all also contributed to the success of the training.

Training of Trainers (TOT) Session: A three-day TOT session was conducted for both representatives of Cotonou's ISP industry and organizations which intend to provide Internet training both internally and externally. The TOT included time on the computers to improve the technical skills of the trainers and to share Internet training with the participants. The non-computer time in the conference room was used to review training methods and the Leland approach to analyzing and planning for information use and the Internet.

Executive Sessions: Leland trainers conducted two half-day training sessions tailored to managers and other decision-makers from USAID/Cotonou development partner organizations. The training focused on introducing the Internet's potential through basic WWW navigation. The executives were also asked to think about how the Internet could help their organizations. The participants were informed of the kind of skills and action planning exercises that would be introduced to their employees attending the two-day training. The goal of these abbreviated training sessions is to create high-level support within each organization for participants returning from the two-day sessions with action plans for improving their organization's communication and information strategies. Overall, these executive sessions were well received and allowed participants to have their concerns addressed by trainers and participants alike.

GLOBE Teachers and Education Specialists Training: The U.S. government-funded GLOBE Program (www.globe.gov) has been active in Benin since 1995, and has recently expanded to a total of 60 schools. This one-day training, conducted the Monday after a week-long GLOBE teacher training in Porto Novo, focused on basic WWW navigation and searching skills and introduced the GLOBE WWW site to GLOBE teachers. The education specialists benefited from the Internet skills they acquired during the training, from a planning process for Internet use in their schools, and from the opportunity to know how other schools are examining the feasibility of Internet use and the utility of Internet resources. GLOBE participants agreed to continue using the GLOBE structure to communicate and share resources until the time when most GLOBE schools have Internet access (currently few are connected). However, participants agreed that they would continue to use the Internet when possible and would continue to think about how to bring its benefits to the classroom.

Participants

Participant organizations were selected and invited by USAID/Cotonou strategic objective teams. Organizations selected individual participants based on their role in the organization and/or their interest in promoting the Internet within their organization.

<i>Type of Training</i>	<i>Number of Sessions</i>	<i>Date</i>	<i>Length of Session</i>	<i>Number of Participants</i>
USAID sectors teams (staff and partners organization representatives)	3	August 17-18, 19-20, 24-25	Two days	50
Training of Trainers	1	August 26-28	Three day	17
Executives	2	August 21	Half day	27
GLOBE teachers/CLEF staff	1	August 31	One day	18
Total participants:				112

Materials

The Leland Initiative Using the Internet for Development Participant's Workbook (in French) was used for all sessions. Supplemental sector-specific Internet resource guides, featuring both English and French web sites, were also distributed to participants. For both the half-day and one-day sessions, specific sections of the workbooks and specialized materials were distributed. A list of Benin's ISPs, with contact information, was also distributed to participants to assist in establishing Internet connectivity in the future.

Outcomes

As a result of the Leland end-user training sessions noted above, member's of USAID/Cotonou's strategic objective teams and many of their development partners were exposed to the potential of the Internet and how it can improve their organization's internal and external communication strategies. Training participants also began creating action plans for Internet use in their organizations. These action plans can be used by each participant to introduce what was learned during the training sessions into his or her organization. The action plans can also be used as outlines for project proposals, should the organizations wish to request outside assistance for incorporating the Internet into their information and communication strategies. At times, the action planning sessions also contributed to a sector-wide plan for improving communication between participating organizations. The combination of training modules which addressed information use; the reflection this process generated among the participants on different methods of communication, as well as the possible uses of Internet within organizations and sectors; and discussion of cost issues made the action planning process a valuable summary exercise.

The tailored training sessions delivered different outcomes. The TOT session, for example, helped to build the training capacity of a select group of people by introducing new methods and modules for Internet instruction. As discussed above, the executive sessions helped to build knowledge and support for Internet use within the management and decision-making levels of the participating organizations. These "Internet champions" were also given the opportunity to reflect on the future of the Internet in Benin and plan together for promoting its use for the benefit of their own organizations and for the country in general.

The training received significant press coverage while it was being conducted, both through radio broadcasts and newspaper articles. The broad coverage was due in large part to the initiative of the journalists attending the sessions. Many of the news pieces contained details about the goals of the training and the utility of the Internet for the country's development. This coverage provided positive coverage of USAID, and increased awareness about the Leland Initiative and the Internet in general.

Evaluations

All participants, except those who attended the executive sessions, were asked to complete evaluation forms after each day of training. These forms requested that participants rank the utility of each module (on a scale of 1 to 6), and asked for feedback on the content and clarity of the presentations. Ample space was provided for further comments.

Overall, the evaluations of the training content were excellent. The participants consistently gave high scores to almost all dimensions of the program, particularly the modules that introduced practical Internet skills. The quality of the training structure, trainers, and materials was also rated highly by the participants. Most participants indicated that they felt comfortable asking questions of the trainers and that the concepts were clearly explained. The participant workbook was also described as very useful and helped participants to understand the objectives of each module. The participants were most critical of the amount of time allocated to each module; most indicated that there was not enough time regardless of the session length.

Participants also felt that the applications components of the training were useful. Most participants found the action planning session, where participants strategize about how to incorporate the Internet into their activities, quite helpful. The "dreaming" module, wherein participants were asked to list all of the possibilities for Internet use in-country (no constraints on funding or logistics), was the least preferred of all the components of the training.

This feedback, as well as the additional comments, indicate that the participants who took part in this training were very satisfied with their overall experience. In general, they were eager to gain practical skills and discuss the ways in which those skills can be applied. They felt that the action planning module prepared them to continue this process with their respective organizations, and that the hands-on computer sessions gave them the skills to advocate Internet use. Most participants indicated that they will train others on the basics of Internet use, and planned on continuing to use the Internet themselves, even if it meant having to go to a "cyber center" for Internet access.

Recommended Next Steps

Despite the challenges inherent in nurturing Benin's nascent Internet industry, Leland Initiative activities, spearheaded by USAID/Cotonou, have significantly contributed to increased Internet accessibility and usage within the country. This increase in access has coincided with a reduction in subscription costs, an increased number of subscribers, and heightened levels of user sophistication.

Moreover, as evidenced by the action plans generated by participants during the recent Leland Initiative Internet end-user training, USAID/Cotonou's development partners readily acknowledge the relevance of the Internet as an information and communication tool.

With the expanding capabilities of Benin's ISP sector, with the corresponding growth of the Internet user community, the Internet industry in Benin and its related support structures will increasingly come to sustain themselves. The in-country technical resources available to "jump-start" the introduction of a new technology (i.e., the Internet) have been scarce. The introduction of the Internet into the country has been driven by key OPT personnel, a few Beninese entrepreneurs, and the efforts of a small number of international organizations, such as USAID/Cotonou. Though significant progress has been made to date, continued support designed to build local capacity to manage and optimally utilize the Internet remains important.

Building on the progress already made by the Leland Initiative and USAID/Cotonou, the following list outlines recommended next steps designed to bolster the skills of individuals from key organizations within the Benin's Internet industry, in addition to heightening general Internet user sophistication at USAID/Cotonou and among USAID/Cotonou's development partners:

Technical Training for Internet Service Providers

As noted above, Benin's nascent Internet industry has made significant progress both toward sustainability and profitability. Following interviews in July with the OPT and five of the Leland designated ISPs, it became evident that the majority of ISPs would benefit from further technical training. Though the Leland ISPs are increasingly operational, some of the critical skills required to configure the equipment necessary to operate as an ISP are lacking. To the extent that customer service and marketing skills could be observed, to varying degrees, these were seen to be in want. Available expertise within the country to fill these gaps is in very short supply. Many of the ISPs have unduly relied on the OPT to assist with the set-up and configuration of their equipment, while stressing the need for technical training (i.e. how to configure routers and servers, and further TCP/IP, UNIX and NT training).

To better enable the technical staff at the respective Leland ISPs to respond to the technical requirements of operating an ISP, in addition to providing them with the means to expand the services they offer to clients, it is recommended that a technical training workshop be conducted in Cotonou benefiting selected technical staff from these institutions. MTDS would be the likely organizer of such a training activity. It is suggested that this workshop be partially funded by Leland Initiative sources and partially through participant fees.

Promotion of a Benin Chapter of the Internet Society

Awareness building and support for the Internet in Benin would be greatly assisted by the formation of a Beninese chapter of the Internet Society (ISOC). An ISOC chapter would provide a forum for ISPs and Internet users to discuss issues of concern and combine efforts to influence policy supportive of a democratic environment for Internet development. Leland Initiative Benin Country

Coordinator, Yaovi Atohoun, has been actively involved in this effort. For further information concerning the creation of an ISOC chapter, consult: www.isoc.org.

Building Internal USAID/Cotonou Internet Capacity

A number of USAID/Cotonou's staff members had the opportunity to participate in the recent Internet end-user training. As the Internet becomes further integrated into the USAID office environment as a productivity tool, it is important that other USAID/Cotonou staff become familiar enough with this resource to both use it effectively for internal purposes and to promote its use by Beninese partners as a development resource.

Recognizing that the interest level is high among Mission staff for increased integration of the Internet into program activities, it is recommended that the USAID/Cotonou Leland Initiative Coordinator organize an Internet working group within the mission to share Internet resources and program options with other Mission staff. Such a working group would integrate one representative from each Mission SO team/office to act as an informal Internet trainer and information resource for others in their SO team/office, thus promoting effective use of the Internet with minimal use of human resources.

Increasing Internet Awareness and Support in Benin

For USAID/Cotonou to continue to build Internet awareness and promote Internet use in Benin, it is recommended that the Mission:

- Continue to provide basic Internet skills and applications training to USAID partner institutions on an as-needed basis (including training of trainers and executive sessions), possibly with the help of CLEF facilities and staff.
- Continue its efforts to fund pilot projects with an Internet component.
- Support the Leland Initiative ISPs by promoting and purchasing their services whenever possible.
- Continue to work with other donors who are supporting Internet-related activities in Benin, specifically, UNDP's Sustainable Development Networking Program).
- Proceed with plans to support the GLOBE program within Benin's schools system.

Conclusion

The Internet end-user training for mission development partners conducted in Cotonou in August was a continuation of the close collaboration between the Leland Initiative and USAID/Cotonou. The training provided the mission with an opportunity to deepen its understanding of how the Internet may serve its needs internally and those of its development partners. Further, the training served to continue the mission's support of Benin's growing Internet industry both through the

orientation of ISP staff and by increasing the number of Internet users and advocates in Benin. USAID/Cotonou is now in a very favorable position to take advantage of opportunities for integrating the Internet's information and communication resources into its program activities, and to experiment with Internet applications designed to help the Beninese help themselves.